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THE NEW YORK HEALTH DEMONSTRATIONS PROJECT TO TERMINATE

Future Plans for Cattaraugus County, Syracuse and Bellevue-Yorkville

THE New York Health Demonstrations project is now in its final year. At the close of 1930, seven years after their inauguration, the up-state New York Health Demonstrations, as such, will terminate. At that time the rural demonstration in Cattaraugus County and the urban demonstration in Syracuse will officially end; the metropolitan demonstration in the Bellevue-Yorkville district in New York City, the last of the three New York Health Demonstrations to be organized, will carry on as an individual project beyond that date.

The official termination of the rural and urban health demonstrations project indicates no lack of interest on the part of the Milbank Memorial Fund in

the future public health programs in Cattaraugus County and in Syracuse. They do indicate, however, a withdrawal of financial participation by the Fund in routine public health activities in these two areas. In its future program the Fund is looking forward to maintaining other contacts with the local health authorities and agencies in both Cattaraugus County and Syracuse.

Since 1923, the payments by the Milbank Memorial Fund to the New York Health Demonstrations project have amounted to an appreciable part of both the actual expenditures and the percentage expenditures of the Fund for those years.

In Cattaraugus County, the establishment of the pioneer county health department and the pioneer county-wide school health service, the organization of a generalized nursing service, the improvement of the county laboratory and the extension of its services, the establishment of sanitary supervision and control over water and milk supplies, the reduction in the tuberculosis and the infant mortality rates, and the increasing local appropriations for county health activities, are striking

At the close of 1930 the New York Health Demonstrations, as such, will terminate, although the Milbank Memorial Fund will continue its interest in the further development of public health work in these communities. Some of the features of the intensive community health programs included in these projects are summarized here. ¶ A critical historical review of the Cattaraugus County health program is being made by a staff of five specialists and a number of staff assistants under the direction of Professor C.-E. A. Winslow. On page 91 are outlined the proposed contents of their symposium report, which is planned for early publication.

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evidences of the success of the rural public health demonstration program.

In Syracuse, the appointment of the first full-time health commissioner, the development of a generalized public health nursing service, the improvement of tuberculosis services and of measures for communicable disease control, the centering of a complete child welfare program under the direction of a Bureau of Child Hygiene, the immunization in the years 1923–1929 of 27,320 children against diphtheria, and the steadily increasing assumption by Syracuse of complete financial responsibility for these and numerous other amplifications and improvements in local health services, have been very definite manifestations of public health progress in the urban demonstration. Both Cattaraugus County and Syracuse have materially improved their public health services when scored according to the appraisal form of the American Public Health Association.

THE prevalence of physical impairments among 100,000 native-born adult males in the United States was the subject of a recent report presented by the Fund's Division of Research in the January *Quarterly Bulletin*. Two additional studies relating to diseases of adult life are summarized in this issue. The first presents a resumé of a study of physical impairments among males in different occupational classes. The second discusses recent changes in the mortality for men and women in the United States between 1921 and 1927. ¶ On page 84, Sir Arthur Newsholme sets forth the experience of one individual institution in London in limiting maternal mortality.

The last two years have been transition years in the history of these two up-state New York Health Demonstrations. During this period the Milbank Memorial Fund

gradually has been withdrawing from financial participation in the strictly local programs in Cattaraugus County and Syracuse, in proportion as these two local communities have assumed responsibility for such activities.

Special Health Research Projects

Beginning in 1931, after the close of the demonstrations in Cattaraugus County and Syracuse, the Milbank Memorial Fund will concentrate its future public health contributions in these areas upon programs of an experimental or research nature which are more general than local in their application, and which promise to contribute to the solution of current problems in the development of progressive public health administration. Certain research projects which have already been begun in both Cattaragus County and Syracuse will be continued without interruption, and other, perhaps unrelated, research projects may be inaugurated in cooperation with these communities.

Examples are the epidemiological field studies, which are being conducted in Cattaraugus County and in Syracuse by the United States Public Health Service. These will continue for a period of two or three years. They were begun in Cattaraugus County on September 1, 1929, and in Syracuse on January 1, 1930.

They are being financially assisted by the Milbank Memorial Fund and are, in important respects, cooperative projects by the Public Health Service and the Fund. The epidemiological studies are directed especially to diseases on which comparatively little epidemiological data is available, such as measles, German measles, mumps, chickenpox and whooping cough, and of certain other conditions, particularly acute rheumatic fever and chronic arthritis, tuberculosis and pneumonia.

Likewise, studies in vital statistics by the Fund's Division of Research in both Cattaraugus County and Syracuse and a series of studies analyzing the nursing service in both of these areas, will be continued after the close of the demonstrations. It is hoped that the nursing data may serve as a basis for setting up additional criteria for effective public health nursing service. So that comparisons may be made, the same plan of analysis of nursing service will be applied to both the urban and the rural communities.

In Cattaraugus County, an extensive epidemiological study of tuberculosis, which the Fund inaugurated in 1929, will also be continued after the close of the demonstration. In this research project, a special study of contacts will be made. Groups of tuberculous families will be compared with groups free from tuberculous infection, and an attempt will be made to relate various environmental and genetic factors to the occurrence of tuberculosis. The same general procedures will be followed in this study as have been followed in a similar study made by the Henry Phipps Institute in Philadelphia in order that comparisons may be made concerning the occurrence of tuberculosis in a city and in a rural area. These studies are being made under the guidance of a special committee.*

The Bureau of Records and Epidemiology, recently organized in Syracuse, is something of an experiment in local public health administration. The Bureau functions as an agency of the Department of Health, coordinating the work of the various bureaus in order that their activities may be directed in the light of the larger program of the Depart-

*The special advisory committee on field studies of tuberculosis is as follows: Dr. Eugene L. Opie, director of laboratories, Henry Phipps Institute; Dr. Edward R. Baldwin, director of the Trudeau Foundation; Bailey B. Burritt, general director of the Association for Improving the Condition of the Poor; Homer Folks, secretary of the State Charities Aid Association; Dr. Charles J. Hatfield, executive director of the Henry Phipps Institute; and Dr. Linsly R. Williams, managing director of the New York Academy of Medicine.

ment. The Fund contributes the services of the director of the Bureau, an epidemiologist with statistical experience and with a broad background and knowledge of public health administration, and the services of his staff.

Of somewhat the same nature as the experiment in administrative statistics and epidemiology in Syracuse was a survey and study of the statistical and record system of the New York City Department of Health. This was made at the request of the Commissioner of Health and resulted in a series of general recommendations for coordinating and developing the statistical and epidemiological work of the Department as a whole and in specific recommendations on the records and administrative statistics of four important bureaus or divisions, namely: the Division of Tuberculosis, the Bureau of Preventable Diseases, the Division of Venereal Diseases, and the Bureau of Child Hygiene.

The Bellevue-Yorkville Health Demonstration

Both by virtue of its later organization and because of a greater concentration of Fund interests in health programs in New York City, the foundation's cooperation in the Bellevue-Yorkville district will continue in 1931 on essentially the basis adopted at the end of 1929.

The Bellevue-Yorkville demonstration, in cooperation with various agencies and individuals, including the Department of Health, private agencies, hospitals, schools and private physicians, has inaugurated a number of important experimental projects, several of which have already had far-reaching results. The inauguration in one-half of the district of a generalized nursing service, the establishment at the health center of the only preschool clinic under the Department of Health, the building up of a comprehensive tuberculosis program which is regarded as one of the most

important services of the demonstration, the inauguration of a health-education program for public, parochial, and junior high schools of the district, the institution of an experimental mental hygiene service, nutrition service, and of a service which provides part-time nursing assistance for private physicians, the launching of a vaginitis research project, and the promotion of general health education, are among the contributions of the demonstration to public health in the Bellevue-Yorkville district and in the City at large.

By invitation of City public school authorities, the school health education program developed in the demonstration area has already been extended to include 115 public schools in Manhattan, Brooklyn, Queens, and the Bronx. Other services, including the vaginitis clinic and the consultation service for private physicians to aid in the diagnosis of patients suspected of being tuberculous, also serve the City as a whole rather than merely the demonstration area. Through the above, and other health activities, the Bellevue-Yorkville demonstration is progressing in its original purpose of enabling the Health Department to improve and to enlarge its activities and to try out experimentally new methods for the prevention of disease. It is also aiding in the working out of an effective scheme of neighborhood health centers in which the various services may be so integrated as to produce maximum results in the conservation of health.

IN addition to the establishment of the first county health department in New York State, the Cattaraugus County Health Demonstration, which terminates at the end of 1930, was also instrumental in establishing New York State's first county-wide school hygiene service.

PHYSICAL IMPAIRMENTS AMONG MALES OF DIFFERENT OCCUPATIONAL CLASSES

A summary of the general results of one of a series of studies on adult health made by the Division of Research of the Milbank Memorial Fund

MUCH attention has been given in the past to differential rates of sickness and death according to economic or social level. A very definite association has been found, particularly for certain diseases, such as tuberculosis. Up to the present time, however, this picture has been inadequate because it has not included information as to the physical condition of persons able to be about and at work—that is, when the conditions which lead to sickness and possible death are in their incipiency. In the study which is being made by the Division of Research of more than 100,000 records of health examinations of insured persons (forming a part of those accumulated by the Life Extension Institute in the last ten years), it has been possible to determine the relative rate of physical impairment in various broad occupational groups which are more or less descriptive of social levels. These groups are: (a) agricultural; (b) professional; (c) executives, merchants, builders, et cetera; (d) salesmen; (e) clerks (including clerks in stores); (f) skilled trade; and (g) miscellaneous.

It should be emphasized forthwith that the differences found will be a minimum expression of the true relations, since the lower social levels are not adequately represented in data of this character. The semi-skilled and unskilled classes do not as a rule protect themselves with insurance, and when they do are not likely to avail themselves of the periodic health service offered by the insurance companies.

Various factors of selection are discussed in the complete

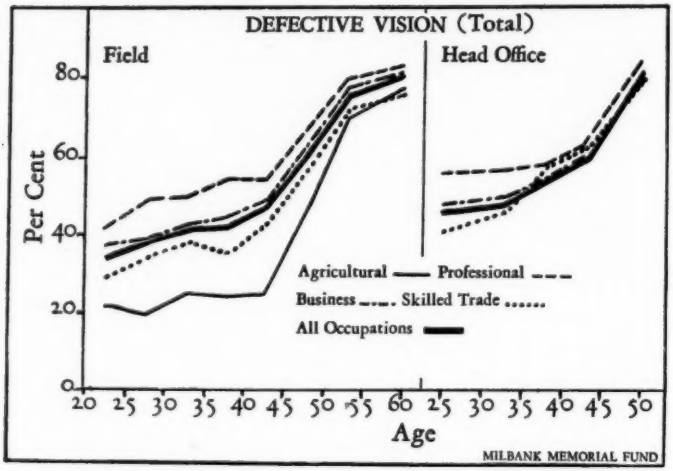


Fig. 1. The agricultural group has the lowest prevalence rate of defective vision, ranking well below average, and the professional group has the highest prevalence. The business group closely follows the average rate for all occupations; the skilled trade group was consistently below average in the younger age groups.

reports of this investigation,[1] and must be kept in mind. For instance, all of those included in the study have previously passed life insurance medical examinations, are generally able to be at work, and in many cases, have come for examination because they thought something was wrong with them. But in a comparison of one occupational group with another, these points are of less significance than in the determination of actual rates of prevalence.

The occupations as recorded by the examiners are not very specific, which has made classification into broad social groups exceedingly difficult. A good deal of overlapping must necessarily exist, the effect of which is to minimize the actual

[1] The Physical Impairments of Adult Life. General Results and Prevalence at Different Ages, Based on Medical Examinations by the Life Extension Institute of 100,924 White Male Life Insurance Policyholders Since 1921, Edgar Sydenstricker and Rollo H. Britten, *The American Journal of Hygiene*, 1930, Vol. XI, No. 1, pp. 73–135.

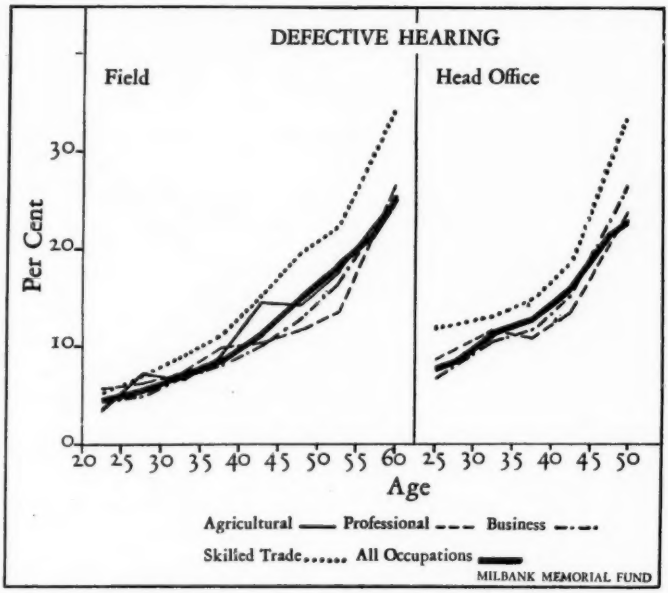


Fig. 2. Defective hearing is more prevalent in the skilled trade group than in all others. The professional, business, and agricultural groups show a prevalence close to the average, the agricultural group being somewhat higher and the professional lower than average at certain ages.

differences in health between social classes by more or less blurring the distinctions.

A preliminary investigation showed that groups c, d, and e, constituting a so-called business group, had practically identical rates for every impairment, when allowance was made for the natural variations due to unlike age distributions in these three classes. The absence of any marked differences among these business classes is a remarkable fact, because the economic status might be quite different for executives and merchants from that for clerks. Economic status, however, is not synonymous with the rather indefin-

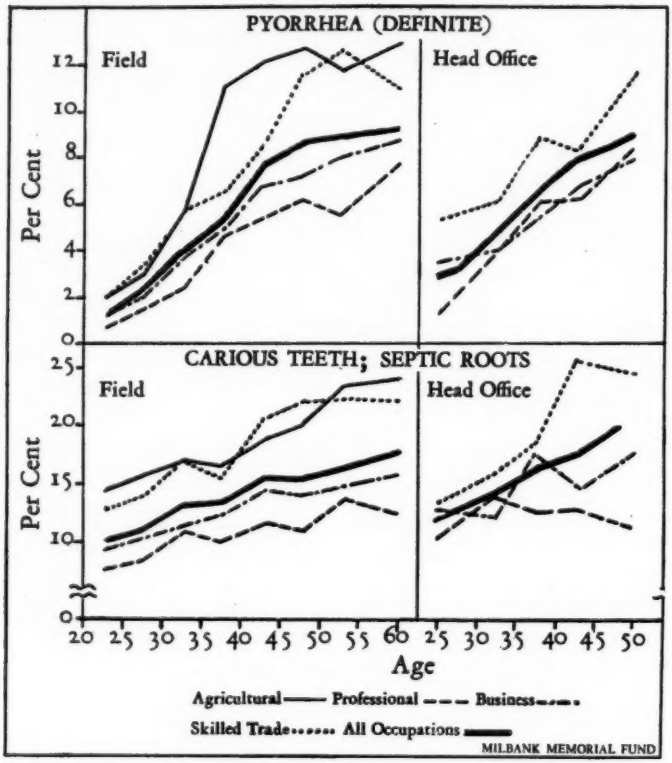


Fig. 3. Diseases of the gums and teeth are much more prevalent among the agricultural and the skilled trade groups than among either the business or professional groups. The lowest prevalence for pyorrhea, carious teeth and septic roots, is found in the professional group.

able social level with which we are concerned in this paper; and accordingly these results do not mean that differences may not be found for contrasting social classes. The fact that the rates in groups c, d, and e are almost identical has simplified the analysis, since it has made it practicable to combine these three groups into a single business class. The miscel-

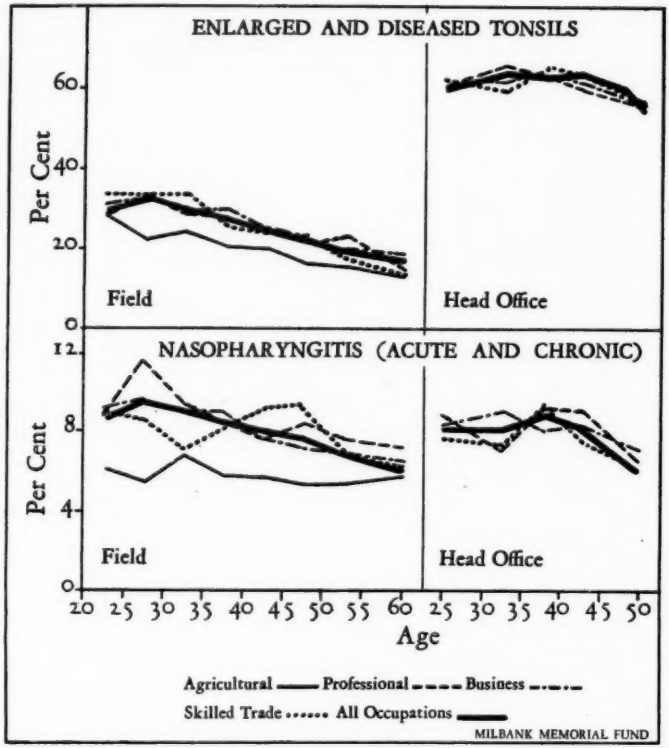


Fig. 4. Enlarged and diseased tonsils are equally prevalent among the professional, business, and skilled trade groups, but noticeably less prevalent in the agricultural group. Nasopharyngitis is less prevalent than diseased tonsils. It is found in a smaller percentage of the agricultural group than in any of the other three groups.

laneous group was disregarded as being quite indeterminable.

For the purpose of studying the relative differences at various ages and also of assuring us of the degree of significance attaching to our comparisons, the percentage of persons with any given impairment was determined in five-year-age groups for the more common conditions. Some of the graphs

giving these percentages are presented in this paper. The examinations of the Life Extension Institute have been divided into two parts: those made in the "head" offices (primarily New York) and those made in the "field." Marked differences in the rates have been found in comparing these two groups, due to the more rigorous supervision of the examinations in the "head" offices. The former represent in a way the interpretation of the Institute officials themselves, while the examinations made in the "field" may be taken as more typical of the consensus of medical opinion generally. In these graphs, curves are given separately for the two groups of examinations. Of course, for the "head" office data, no rates for farmers will be available.

The significance of the age curves of the impairments was discussed in the January *Quarterly Bulletin* of the Milbank Memorial Fund and will not be referred to here.

For *defective vision* (less than normal in either eye as judged by either the Snellen or the Jaeger tests), the professional group has the highest rate and the agricultural the lowest (especially below fifty years of age). Skilled trade is below the average in the "field" data, but not consistently so in the "head" data. Although no graph is given for the comparison, it may be observed that skilled trade is the highest group for uncorrected vision, while professional tends to be low. Agriculture is low for both corrected and uncorrected vision. The business group follows the average closely for both conditions. One should not be surprised to note that these curves have a tendency to become horizontal in the older ages; they are based purely on the *percentage* with defective vision and do not take into account the *severity* of the defect.

Defective hearing. Any condition showing less than 10/10 in either ear is taken as defective hearing. No audiometer tests were used. The only occupational group showing a per-

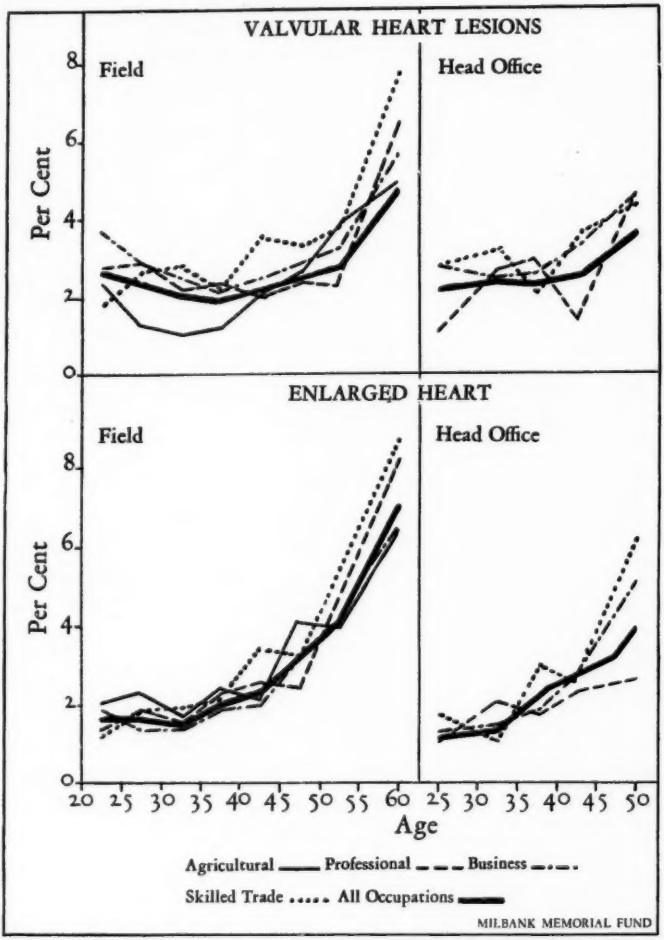


Fig. 5. The skilled trade group shows the highest prevalence of valvular heart lesions at most ages and was somewhat high for enlargement of the heart.

centage for defective hearing widely different from that for the total data is the skilled trade. Here the difference is clear-

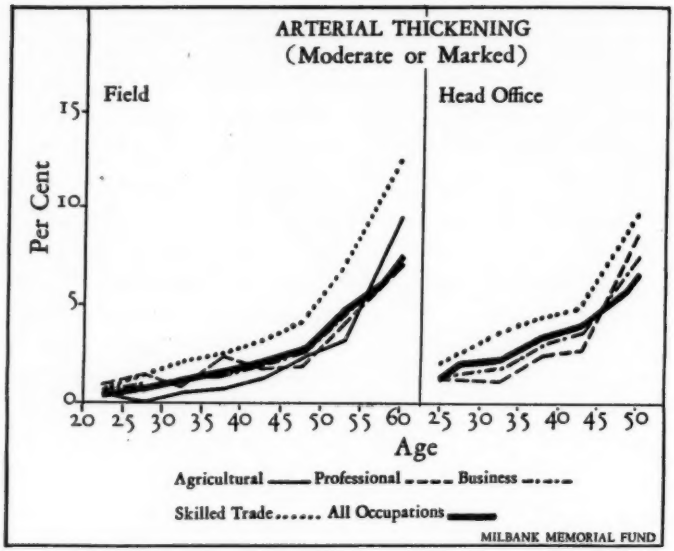


Fig. 6. Arterial thickening is markedly more prevalent in the skilled trade group than in the others. The agricultural group on the other hand shows a prevalence of arterial thickening which, except for the age group over 55, is below the average for all occupations.

cut in both "head" and "field." There is a tendency for the professional group to have rates slightly below average.

Teeth. Pyorrhea (definite) and carious teeth have been selected to represent the dental phase of the investigation. The percentage of farmers with pyorrhea rises rapidly with age and reaches eleven before the fortieth year, at a time of life when none of the other occupational groups has a higher percentage than seven and the average is little more than five. Carious teeth (septic roots) also show a high percentage for the agricultural group. High rates in both "head" and "field" are noted for the skilled trade group, while the professional group has low rates for both of these conditions. That these results reflect differences in dental care is suggested.

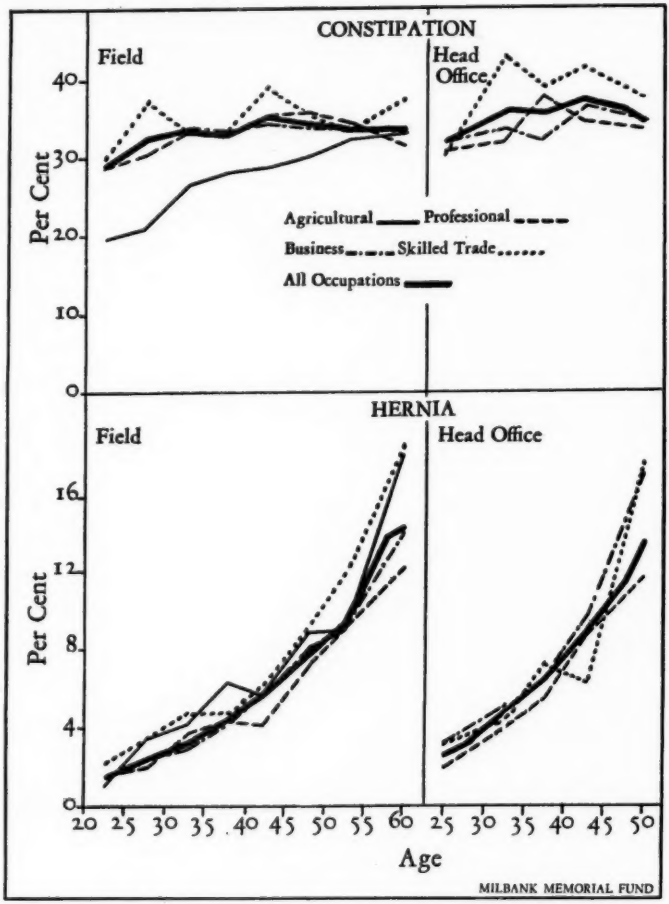


Fig. 7. Constipation is most prevalent in the skilled trades; and least so in the agricultural group. With advancing age the divergence disappears and constipation becomes prevalent in the agricultural group.

Nose and throat. For tonsils (enlarged, diseased, buried or cryptic, plus-plus or more) and for naso-pharyngitis (acute and chronic), the agricultural group is found to have the low-

Summary of Rates of Impairment in Broad Occupational Groups as to Whether Higher or Lower than Average

	AGRICULTURAL		PROFESSIONAL		BUSINESS		SKILLED TRADE	
	HIGH*	LOW*	HIGH*	LOW*	HIGH*	LOW*	HIGH*	LOW*
Eye and Ear		Def. vision—Corrected (M) Uncorrected Diseases of external eye (?) Perforation of eardrum (?) Wax in ears	*Def. vision—Corrected*	Def. vision—Uncorrected Def. hearing (S)			*Def. vision—Uncorrected* (M) *Def. hearing* (M) *(Ranks highest in most of group)*	Def. vision—Corrected
Teeth	*Carious, septic* (M) *Pyorrhea, def.*			Carious, septic(M) Slightly infected gums Pyorrhea, def. (M) Insufficient dentistry (S)		Carious (S) Pyorrhea, def. (S)	*Carious, septic*(M) *Slighly infected gums* *Pyorrhea, def.* *Insufficient dentistry*	
Nose, throat and other Respiratory	*Asthma* (?)	Deflected sept. Enlarged and dis. tonsils (M) Naso-pharyngitis (M) Hypertrophic rhinitis (M)				(Tendency to rank lowest in this group)	*Frequent colds* (S) *Bronchitis*	
Heart and pulse	*Slow pulse*	Functional murmur Valvular (S) Rapid pulse					*Valvular* (S) *Enlarged* (S)	
Arterial thickening		Arterial thickening (S)		Arterial thickening (S)			*Arterial thickening* (M)	
Stomach and abdominal	*Gastric disorders* *Tenderness gall bladder region*(M *Tenderness appendix region* *Hernia* (S)	Constipation (M) Weak inguinal rings Hemorrhoids (S) Hab. use of laxatives		Hernia (S)			*Constipation* *Hab. use of laxatives* (S)	
Genito-urinary	*Enlarged prostate* *Frequent urination* (M)			(Tendency to rank lowest in this group)				
Miscellaneous	*Dizziness* *Backache*	Adenitis Chronic skin Use patent medicines Enlarged thyroid Varicocele	*Chronic skin* *Mastoids*	Backache			*Backache* *Insomnia* *Use patent medicines* *Varicose veins*	Mastoids (?)

*S—slight difference; M—marked difference; ? indicates that it is doubtful whether difference is significant

est incidence; other differences are apparently insignificant.

Heart and arteries. The curves for heart conditions are presented primarily to indicate how little difference there is among the broad occupational groups. However, although one cannot with assurance conclude that any occupational group has significantly higher rates, an interesting difference is indicated for the farmer group with respect to the character of the age curve for valvular heart lesions. During the early part of life the rate is relatively low, but later it rises to about the same level as that for other occupational groups. Does this suggest that the rates in the agricultural group more nearly represent the prevalence to be expected as a normal part of the aging process? There is a bare suggestion of a higher rate for valvular lesions and enlarged heart in the skilled trade group. In the case of arterial thickening, the skilled trade group is very much higher than the others, and the agricultural group is somewhat lower.

Miscellaneous conditions. Many other comparisons by age have been worked out and discussion will be found in the complete paper in regard to this subject.[2] Two graphs have been included in this summary, one for constipation and one for hernia. In the case of the former the most marked condition is the low rate among young farmers. The skilled trade seems slightly higher than the average. For hernia, the differences are not marked. The skilled trade and agricultural groups are perhaps slightly above the average.

The general impression left by these comparisons is the higher rate of impairments in the skilled trade group. Thus a difference according to social level is evident, conforming to that found in the case of sickness and death records. A summary table expressing these relations in a purely qualitative

[2] Physical Impairments and Occupational Class. Differential rates based upon medical examinations of 100,924 native-born, adult, white insured males. Edgar Sydenstricker and Rollo H. Britten, United States Public Health Reports.

form is also given to bring into relief the important aspects of the comparison and to include many impairments which have been omitted from the present discussion because of limited space. The table indicates what impairments have "high" rates and what have "low" rates for each of the four broad groups. The degree of difference is indicated roughly ("M" means marked; "S," slight; and "?," of doubtful significance). The "head" and "field" results are not considered separately, but the consistency of the determinations in the two divisions has been taken into account.

It is possible from this table to see rather clearly what the broad differences are. For most conditions, the agricultural group would seem to have rates definitely below the average for all examined, but there are important exceptions, notably for teeth, stomach and abdominal conditions, and the genito-urinary system. The rates are low for diseases of the eye and ear, nose and throat, heart and pulse, blood vessels, and many miscellaneous conditions.

The professional group conforms more nearly to the average for the entire population considered. Few conditions are found to have excessive rates, but, on the other hand, there are not very many with particularly low rates.

The business group approximates the average for the entire population considered in nearly every respect.

The skilled trade group stands out distinctly from the others in a number of respects. Its rates of impairments are excessively high for eye and ear, teeth, heart and pulse, and many miscellaneous conditions.

A further study in progress deals with the specific skilled trade occupations, and was undertaken for the purpose of ascertaining just where these excess rates are found. In general, preliminary analyses show that the differences are more or less common to most of the skilled trade occupations.

SOME RECENT CHANGES IN MORTALITY AMONG ADULTS IN THE UNITED STATES

A summary of one[1] of a series of studies on diseases of adult life, made by the Division of Research of the Milbank Memorial Fund

THAT the trend of general mortality in adult life and of mortality from such diseases as heart disease and cancer has not been favorable in recent years has been pointed out by various writers. The average expectancy of life after reaching maturity has declined during the past decade, according to figures published by the Metropolitan Life Insurance Company,[2] although some gain in the expectation of life at birth is indicated, as a result chiefly of the improvement in infant mortality. With the reduction in mortality in the early years of life and from the more serious infectious diseases, the constitutional and degenerative diseases of adult life have taken the leading position as causes of death. To combat these diseases, the cooperation of the individual is necessary, and numerous efforts are now being made by health and medical agencies to encourage people to have periodic examinations for the purpose of discovering any impairments or evidences of disease in their early stages.

Changes in conditions affecting the health of adults can be studied only through changes in mortality, since comparable data on the prevalence of disease and ill-health are not available over a period of years. A marked difference in the trend of mortality among men and women who had reached middle life is indicated for the years since 1920 and it is pur-

[1]Complete study was published in the Journal of Preventive Medicine, May, 1930.

[2]Statistical Bulletin, Metropolitan Life Insurance Company, February, 1923.

posed in this article to consider the changes in mortality for specific sex-age groups and in the death rates at specific ages for the major causes of adult mortality.

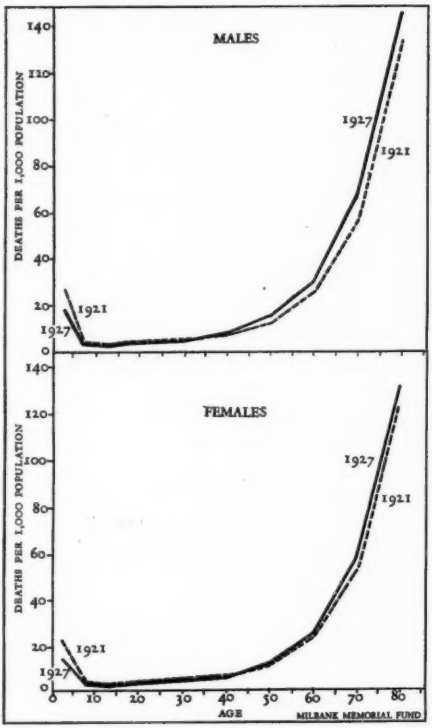
The best health years so far experienced in the United States are 1921 and 1927; in neither year was the death rate affected by any unusual prevalence of respiratory conditions nor by any other general epidemic or unfavorable situation. Accordingly, these years have been selected for a comparison of specific sex and age groups in order to reveal what differences in the mortality experience of the two years among adults at different ages occurred in spite of the similarity of the gross rates. The mortality data used throughout this paper refer to the original death registration area composed of the New England States, Indiana, Michigan, New Jersey, New York and the District of Columbia. For this area, the death rate among males was 12.5 both in 1921 and 1927[3]. For females the death rate showed some decline, being 11.8 in 1921 and 11.2 in 1927, and in both years the total rate for females of all ages was more favorable than the male death rate.

The death rates for males at specific ages in the two years are compared in the upper half of Fig. 1, and the same comparison for females is presented in the lower half of this figure. Comparing first the mortality among males, we find that the mortality up to age 35 was consistently lower in 1927 than in 1921, but after this point the mortality curve for 1927 crosses that for 1921 and continues higher for all the older age groups. The two curves showing mortality among females appear fairly similar to the age mortality curves for males except that the female curve for 1927 does not cross

[3]The figures for mortality by sex and age in 1927 were furnished in manuscript by the United States Bureau of the Census, as were also the data on deaths in 1921 and 1927 from specific causes by sex and age which are discussed later in this report. Other data are from the United States Mortality Statistics, published annually by the Bureau of the Census.

the 1921 curve until the age group 45-54 is reached and thereafter the curves stay rather closer together. Thus, for each sex, the mortality in early childhood in 1927 was very decidedly more favorable than in 1921, the improvement was less marked for the young adult ages, while in middle age and old age the rates were less favorable in 1927, with the increase in middle age mortality starting at an earlier age for the males than for the females.

Fig. 1. Comparison of the death rates for 1921 and 1927, at specific ages, for males and females in the United States registration area of 1900.



The actual differences between the rates in these two years for either sex and specific age groups are brought out strikingly by the bar graphs in Fig. 2. The saving in lives under 5 years of age is very marked for both males and females, amounting to eight and seven for each one thousand boys and girls respectively in the population. Under age ten the decrease in the death rates was slightly less for females than for males, but from age 10 to 34 the opposite is true, and

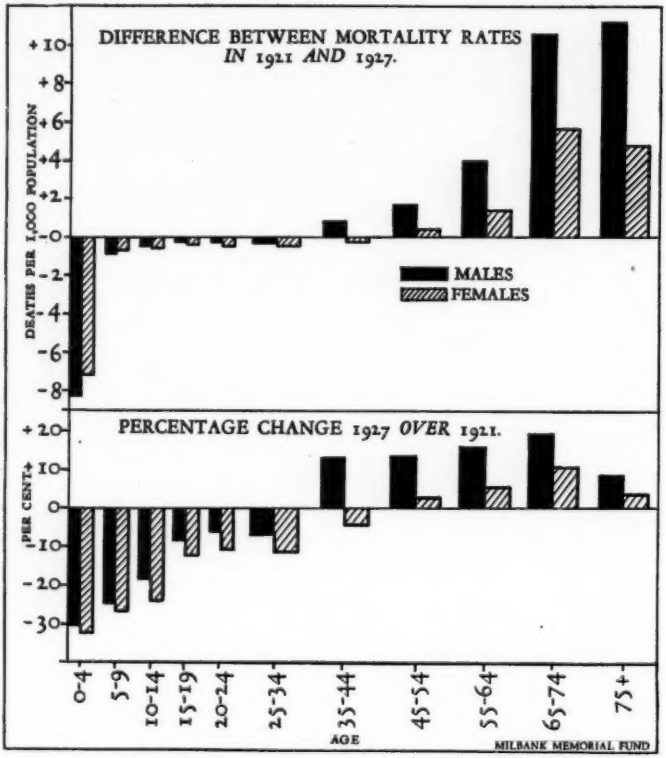


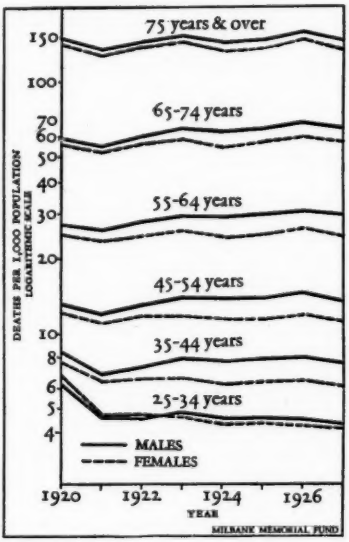
Fig. 2. Actual and percentage changes in the death rates between 1921 and 1927 for specific sex-age groups in the United States registration area of 1900.

the greater improvement for females becomes increasingly marked with age. The increase in the death rate for males aged 35 to 44 years is nearly one per thousand population and for each successive ten-year age group the excess mortality in 1927 over the 1921 rate gives an increasingly unfavorable picture until for the ages 65 and over the excess is more than ten per thousand population. The situation indicated for the

females of adult ages is in striking contrast to that for males; for ages 35 to 54 the mortality among females changed only slightly between 1921 and 1927, the increase in mortality for ages 55 to 64 was less than one-third the increase at this age for males, and for ages 65 and over the increase was approximately one-half that for males.

A more comparable view of the changes in mortality which have occurred at different ages in this short period is given by the percentage decreases or increases shown by the death rates in 1927 for either sex at specific ages over the rates in 1921. These are presented graphically in the lower part of Fig. 2. At every age the proportionate change is more favorable for females than for males and this is particularly true for the ages of middle life. Very striking, indeed, is the comparison of the two sexes for the age group 35 to 44, at which age the death rate for males in 1927 showed an increase of 12.5 per cent over the 1921 mortality as against a decrease in the female death rate of 4 per cent. At ages 45 to 54, the increase for males was 13.5 per cent compared with an increase of 2.5 per cent for females.

Fig. 3. The trend of the death rates for males and females of adult ages in the United States registration area of 1900, during the period 1920–1927.



That these differences in the trend of mortality for the two sexes at various ages are characteristic of the period since

1920, is shown by the annual mortality rates from 1920 to 1927 inclusive for adult males and females of specific ages presented in Fig. 3. The annual rates have been plotted on a logarithmic scale and the curve or line for each sex-age group indicates the trend of the mortality. A greater slope upward or downward means a greater *relative* change in the mortality. The widening difference between the male and female mortality is quite marked, especially for the young adult groups. Even at ages 25 to 34, the more favorable course in the female death rate is seen; for the years 1920 to 1922 inclusive the female death rate was higher than the male, but in 1923, the curves crossed and the female rate has continued lower. For all age groups, the trend in the female mortality during this eight-year period has been more favorable than that exhibited by the male death rates, even when both have increased, as for ages above 55 years.

It is interesting to note that a similar unfavorable trend is not found in mortality in England and Wales. In Fig. 4, the trend of the death rates for specific sex-age groups in the original registration area of the United States is compared with that of the corresponding group in England and Wales[4] for the period 1920-1927. Contrary to the United States, an epidemic of influenza occurred in England in 1927 raising the rates for that year, while 1926, an epidemic year in the United States, was a non-epidemic year in England. The contrast in the trend of male mortality in the two countries for each of the decennial age groups from 25 to 64 years is very marked.

After age 35, for both males and females the deaths from eight causes make up 65 to 85 per cent of all the deaths. These are tuberculosis (31-37)[5], heart disease (87-90), cancer

[4]Rates for England and Wales were taken from the Registrar-General's Statistical Review of England and Wales, for the year 1928, pp. 4-5.

[5]Numbers in parenthesis refer to International List of Causes of Death, 1920 Revision.

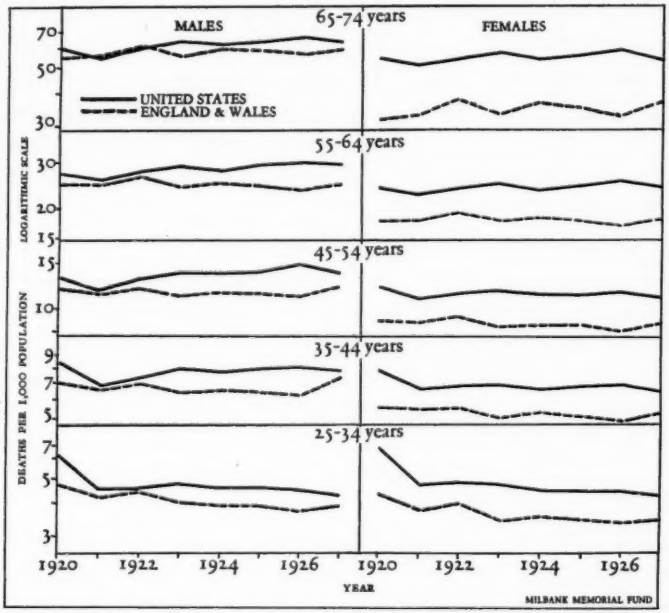


Fig. 4. A comparison of the trend of mortality among adults in the United States registration area of 1900 with that in England and Wales for the period 1920–1927.

(43-49), diabetes (57), cerebral hemorrhage and apoplexy (74), pneumonia (100-101), nephritis (128-129), and accidents (175-196, 201-203). They vary as to relative importance at different ages but each exacts a heavy toll of adults every year.

In order to give the reader an idea of the relative importance of these diseases at different ages, Fig. 5 is presented. Obviously, heart disease is the most important cause of death for persons aged 45 years and over; the mortality from heart conditions rises very rapidly among adults and is more than double that from any of the other seven causes at ages 65 and over. Comparison of the age curve of mortality from tuber-

culosis with the curves for other important causes of death in adult life is particularly interesting. Among males, tuberculosis was the most important cause of death in 1927 at ages 25 to 44; among females it was the most important cause of death at ages 25 to 34, but it was exceeded by both cancer and heart disease at ages 35 to 44 years. The death rate from tuberculosis does not show the rise with age so characteristic of the other diseases included here.

Now, in order to compare the changes in the death rates from these causes between 1921 and 1927 among males and females at different ages, percentage increases or decreases have been computed and are shown in Fig. 6. The relatively favorable change in the mortality of females from each of these causes except diabetes, as compared with the change in the mortality among males, is very marked, especially for the ages from 35 to 64.

The greatest relative increases are found in the mortality from heart disease and accidents. Among males 35 to 44 years of age, the mortality from heart disease in 1927 was about 40 per cent in excess of that in 1921, but an excess of only 10 per cent among females of that age is manifested. From 45 to 74 years of age, the 1927 death rate from heart disease among males varied from nearly 30 to 37 per cent higher than the 1921 rate, as contrasted with the corresponding change in the death rates for females which was from 14 to 23 per cent higher. For ages 75 and over, the death rate from heart diseases was about 25 per cent higher for both sexes than in 1921. In the case of accidents the maximum increase for males is shown at ages 55 to 74, with an increase of about 40 per cent in 1927 over 1921, but for the younger adult males, aged 35 to 54 years, an increase of 30 to 34 per cent is indicated. The increase in accident mortality for females aged 35 to 54 was only slightly less than for males of

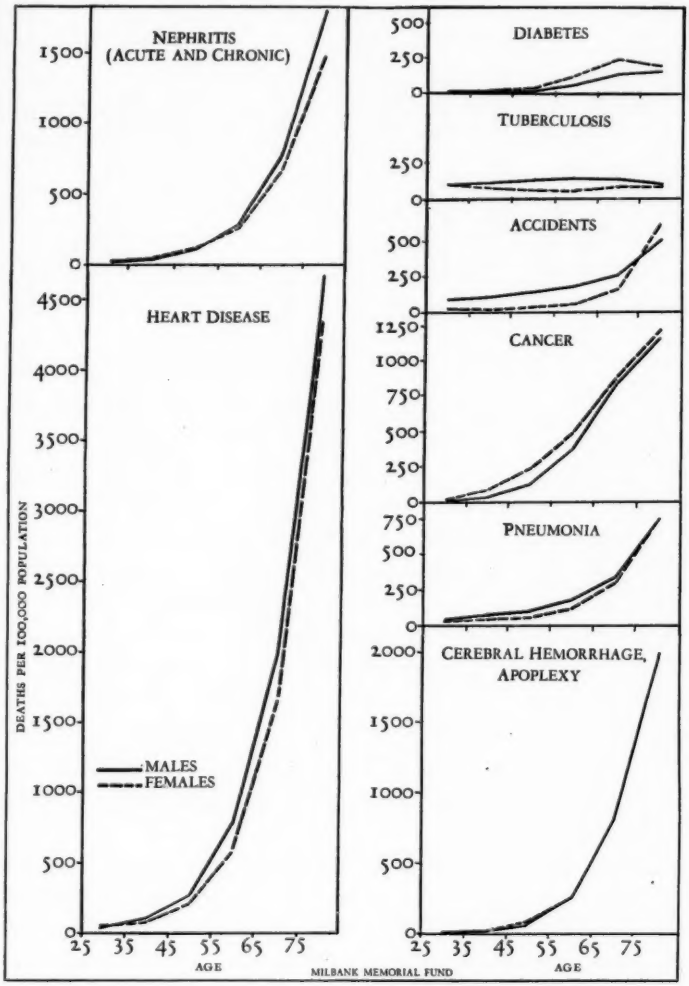


Fig. 5. The death rates in 1927 from eight important causes of death for specific sex-age groups in the United States registration area of 1900.

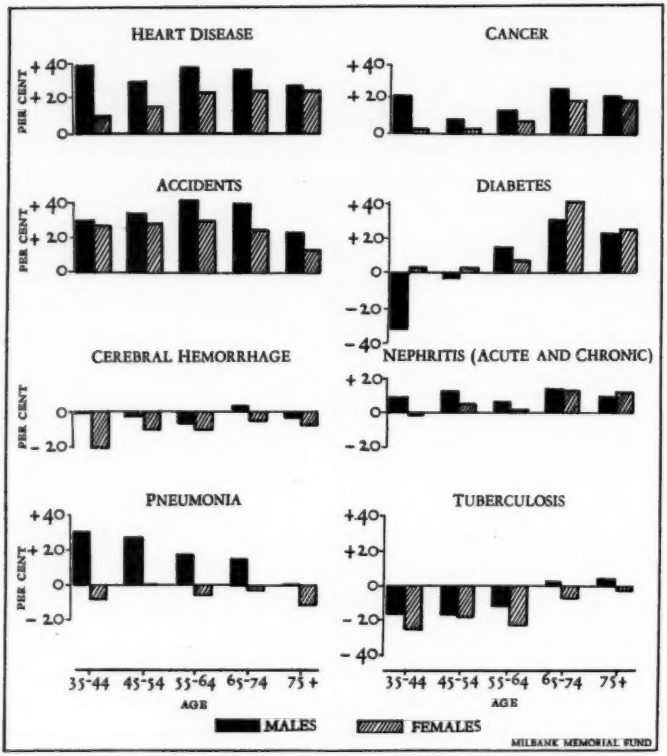


Fig. 6. Percentage increase or decrease in the death rates for 1927, as compared with the rates for 1921 from eight important causes of death for specific sex-age groups in the United States registration area of 1900.

that age, but at older ages, the percentage increase in the female mortality is 10 to 15 per cent less than that for males of corresponding ages.

Although the percentage increase in cancer mortality is less than for heart disease or accidents, it is far from negligible and the greater increase for males is very striking. The younger adult males also had a very definitely higher mor-

tality from pneumonia in 1927 than in 1921, which was not true of the females at any age. For nephritis, acute and chronic, the increase in the male rate for ages 35 to 64 years was only 6 to 12 per cent, but exceeded the increase in the female death rate for this cause. Mortality rates from cerebral hemorrhage and apoplexy and from tuberculosis showed a decrease at nearly all adult ages for both males and females, but the decrease was greater in the female rates. Only for diabetes was the change less favorable for females; the mortality from this disease has shown marked improvement for both sexes up to age 35 and for males up to age 45, but in the older age groups deaths from diabetes have increased for both sexes.

What these increases mean in actual numbers of persons dying in 1927 from these causes, who would not have died if the rate had continued the same as in 1921, can be seen in Fig. 7. For example, out of every 100,000 men aged 35 to 54 years in the population 43 *more* died from heart diseases alone in 1927 than died in 1921; 30 *more* died from accidents; 21 *more* died from pneumonia; and 9 *more* died from cancer; making a total of 103 *more* deaths in each 100,000 population from these four causes alone. A saving of 25 per 100,000 resulted from the decline in tuberculosis mortality but there remains a net loss of about 120 males aged 35 to 54 years out of every 100,000 in the population above the loss by deaths in 1921.

No such increase in deaths from these causes occurred among women aged 35 to 54 years. There were 16 *more* deaths from heart diseases; 6 *more* from accidents; 5 *more* from cancer; and 2 *more* from nephritis for each 100,000 women; but these increases were wholly offset by decreased mortality from other causes and the net effect was a saving of about 3 per 100,000 in the mortality for this age group.

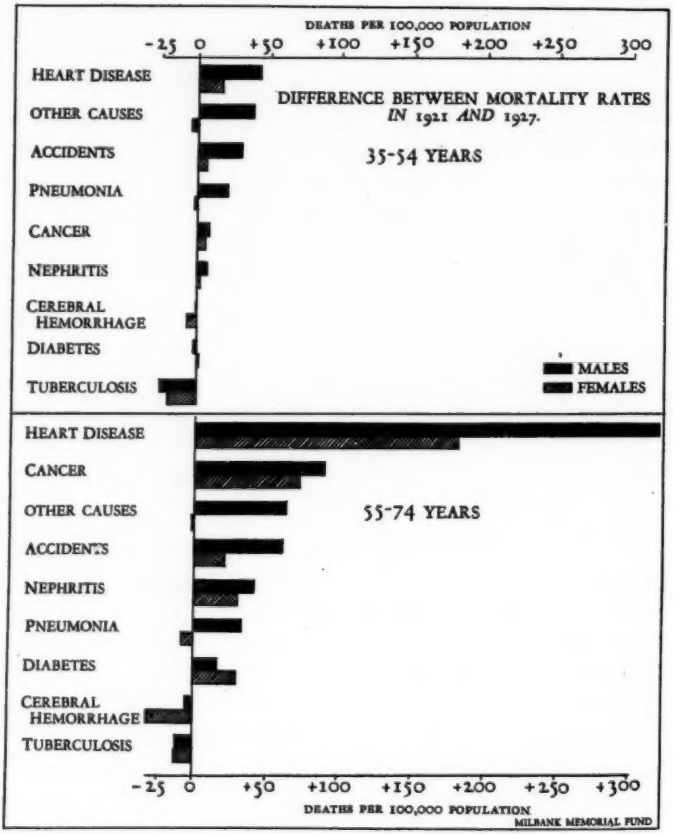


Fig. 7. Actual difference between the death rates for eight important causes in 1921 and 1927 among males and females at ages 35 to 54 years and 55 to 74 years in the United States registration area of 1900.

For males aged 55 to 74 years, a striking increased loss of life is shown, with a total *net* increase of about 600 per each 100,000. From heart disease, 319 *more* out of every 100,000 men of this age died in 1927 than in 1921; 90 *more* died from cancer; 61 *more* died from accidents; 42 *more* died from acute

or chronic nephritis; 33 *more* died from pneumonia; and 17 *more* died from diabetes.

For women in the age group 55 to 74 years, there was an increase of 182 deaths from heart diseases; 73 from cancer; 30 from nephritis; 30 from diabetes; and 21 from accidents for every 100,000. The net change from all causes was an increase in mortality of about 280 per 100,000 population which, though less than half the net increase for males at this age, is substantial.

A comparison of the changes in mortality in several areas within the original registration states selected for broad differences in urbanization and density of population showed some interesting and suggestive differences. The three states of northern New England (Maine, New Hampshire, and Vermont) were taken as a predominantly rural area, Massachusetts as an urban area, and New York City as a definitely metropolitan area, and the percentage changes between 1921 and 1927 in the death rates of specific sex-age groups in these three areas were compared. Among males, the changes in this period at different adult ages were not very different in Massachusetts and in the three rural states, and an increase in mortality is not manifested below age 55. For New York City, however, the male death rate for each ten-year group above 25 years of age increased between 1921 and 1927; the change was very much more unfavorable than in either of the other areas, especially in the younger adult ages. Changes in the mortality among females in these selected areas, with a single very minor exception, for each adult age group were more favorable than among males in the same area. But, as for males, the change in New York City was less favorable at each age than in the other areas. These comparisons suggest that the explanation for a considerable part of the unfavorable trend in mortality among adults is to be sought in conditions associated with our larger metropolitan districts.

AN INSTANCE OF EXCEPTIONALLY LOW MATERNAL MORTALITY IN LONDON, AND SOME COMMENTS ON THE CIRCUMSTANCES IN WHICH IT HAS BEEN SECURED

by Sir Arthur Newsholme, M.D., K.C.B.

Former Chief Medical Officer of the Local Government Board of England and Wales

Sir Arthur Newsholme is conducting for the Milbank Memorial Fund a series of international studies on treatment as related to the prevention of disease. His survey, of which the accompanying article is an interesting by-product, is to appear later in book form.

MY attention having been drawn to the East End Maternity Hospital, Commercial Road, London, E. 1., as an institution in which an exceptionally low rate of maternal mortality in parturition has been experienced, I visited this institution on June 29, 1929, and made a careful examination of its record, the results of which and some observations thereon, are embodied in the following pages.

This institution was founded in 1884, the "Home" having seven beds at a house in Shadwell. After an experience of 427 confinements with one death, the institution was removed in 1890 to its present address, and then had thirteen beds.

During the years 1890-1897, there were 1,629 confinements with 12 deaths. The number of beds was then increased to eighteen or nineteen including one isolation bed, and two labor beds, and during 1898-1902, 1,278 confinements occurred, with 2 deaths. In 1903, the number of beds was increased to twenty-seven (including one additional labor bed); and during 1903-1907, there were 1,966 confinements and 6 deaths. An additional neighboring house was acquired in 1908, with an increase of available beds to thirty-three.

No further increase of beds occurred until 1921. The period 1908-1921 may be conveniently divided into two, the first the pre-war 1908-1913, the second 1914-1920. In the period 1909-1913, 2,823 confinements oc-

curred with 6 deaths; in the period 1914-1920, 4,970 confinements with 10 deaths. Then a new ward was opened and there were now thirty-eight beds, increased soon afterwards to forty-one, and in 1921-1926, there were 6,373 confinements with 7 deaths.

The beds were next increased to fifty-six, and in 1927-1928, there were 2,517 confinements with 3 deaths. The maternal mortality per 1,000 births among the patients confined in the Hospital or at home under the care of its staff, during its history, is shown in Table 1.

Thus during the entire experience of the Hospital, deaths of mothers have occurred at the rate of 2.1 per 1,000 infants born in the Hospital, and at the rate of 0.74 per 1,000 infants born in the home practice of the Hospital, or 1.35 per 1,000 infants born in its entire experience.

Table 1. Maternal mortality per 1,000 births among in-patients and out-patients of the East End Maternity Hospital, 1884–1928.

Period	Number of Mothers Admitted	Number of Deaths	Deaths per 1,000 Births
	A. Hospital Patients		
TOTAL	22,383	47	2.10
1884–1889	427	1	2.34
1890–1897	1,629	12	7.37
1898–1902	1,278	2	1.57
1903–1907	1,966	6	3.05
1908–1913	3,223	6	2.13
1914–1920	4,970	10	2.01
1921–1926	6,373	7	1.10
1927–1928	2,517	3	1.19
	B. Patients Attended at Home		
TOTAL	27,184	20	0.74
1884–1889			
1890–1897	1,548	3	1.94
1898–1902	1,530	5	3.27
1903–1907	2,384	1	0.42
1908–1913	5,597	1	0.18
1914–1920	7,490	8	1.07
1921–1926	7,027	2	0.29
1927–1928	1,608	0	0

As this mortality is only about one-third that of the metropolis as a whole, it is desirable to examine its record somewhat critically.

If there were marked superiority in the work of the Hospital, one would at first blush expect this to manifest itself in its interne experience, but in this the death rate is more than double that experienced in the home work of the Hospital. If one limits the comparison to the period 1914-1928, the same superiority of home over hospital experience is shown (1.45 as against 0.51). In both instances it probably does not represent any inherent superiority of parturition at home over parturition in hospital under reformed midwifery conditions, but only that more difficult cases are picked out for hospital treatment, as well as cases in which home conditions are specially unfavorable to successful lying-in.

But is the total experience of the Hospital, interne and externe (1.35 deaths per 1,000 births), comparable with the puerperal death rate for London as a whole for the single year 1928, which was 3.09 per 1,000 births?

The metropolitan figures include deaths due to complications in all stages of pregnancy, including abortion, whereas those for the East End Hospital refer particularly to births after the seventh or eighth month of pregnancy. How much does this affect the comparison?

There are no available English statistics as to deaths due to pregnancy, classified according to its stage; but it is known that the number of deaths occurring in the first seven months of and due to pregnancy weighs lightly in the total result.

In 1911-1920 in England and Wales, 3,235 deaths were returned as due to "accidents of pregnancy" out of 32,971 from all accidents of pregnancy and childbirth. A mental allowance must be made for the possibility that the total national and the metropolitan experiences are handicapped slightly in comparing with the experience of the East London Hospital.

It is quite certain, however, that only a relatively small change would be effected in the compared rates if full allowance were made for the unstated complications of earlier pregnancy in the hospital experience.

Of the births in the Hospital,

	In the Hospital	In Patients' Homes	England and Wales
Births	4,889	2,643	
Stillbirths	144	69	
Deaths during the first fortnight after live birth	71	28	
Stillbirths per 100 births	2.95	2.62	3.30 (1926)
Deaths in first fortnight after birth per 1,000 births	14.5	10.7	26.5 (1927)

Table 2. Deaths of infants in the hospital practice of the East End Maternity Hospital during 1925–1928, inclusive.

310 in 1927, and 384 in 1928, were of Poplar inhabitants, and many Poplar women are attended from the Hospital in their own homes. The total Poplar births in the four years 1925-1928 were 14,026, and the puerperal deaths were 42, equal to a rate of 2.95 per 1,000 births. As there is no reason to doubt that the factors favoring a low puerperal death rate in those women attended from the Hospital occur equally in the experience of Poplar, one cannot avoid the conclusion that in Poplar, as in the rest of London, serious causes of excessive puerperal mortality exist and continue, which are avoidable, because in the experience of the East End Maternity Hospital they are being avoided.

In confirmation of the conclusion that a real saving of maternal life—and with it of much suffering short of a fatal result—is being experienced in the work of this institution is the collateral experience of stillbirths and of deaths within a fortnight after live birth, in the hospital practice. A summary of this experience is shown in Table 2.

It will be seen that the more favorable mortality in mothers is associated with a somewhat lower proportion of stillbirths and with a remarkably low death rate in infants while under the care of this charity.

It is scarcely possible to avoid the conclusion that, *given equal care in the entire community, the infant death rate in this most lethal period of infancy might be halved.*

It may be added that in 1928 the proportion of primiparoe in

the experience of the Hospital was 43 per cent of the total births, which does not support the view that multiparous births are more frequent in this charity than elsewhere.

The number of attendances at the antenatal clinic averaged three and one-third for every mother. One-fifth of these attendances were made to the medical officer's clinic.

In the same year the total original breech presentations were 104, cephalic version being successfully performed in 48, and attempted unsuccessfully in 17 cases. In 12 other such cases the condition was not discovered before birth, and in 27 for various reasons version was not attempted. In 3.2 per cent of the total cases, forceps were applied. The proportion of forceps cases in externe cases was 1.65 and in interne cases 4.31 per 100 patients.

The preceding analysis of the mortality experience of this institution, and a comparison of its figures with those for the whole country, for London, and for one of the two metropolitan boroughs in which the work of the institution lies, makes it practically impossible to avoid the conclusion that—allowing for all causes of accidental variation—the favorable experience of the East End Maternity Hospital must, in the main, be *the result of work of a more efficient character than that in the general community*. If so, the causes of the difference deserve careful study.

Some of these may be gathered from the following description of the working of the charity. There is continued oversight and care for the mother throughout pregnancy from the moment she registers for midwifery attendance; also in parturition; and for her infant and herself for a fortnight afterwards. The women attended are all married. They are all poor, and I am informed that even when the pecuniary Maternity Benefit under the National Insurance Act is forthcoming, the managers of the Hospital seldom feel justified in claiming part of it. Commonly ten shillings is paid for maintenance in hospital during two weeks, and twenty-one shillings for primiparoe. The total amount received from patients was £1,291 in 1928, the total expenditure for the year being £7,640.

Patients book for maternity attendance usually in the sixth

or seventh month of pregnancy. Out of over 2,000 patients in 1928 only about a dozen had failed to book. This implies that the first condition of successful midwifery is secured in most of the cases attended by this institution.

Each primiparous expectant mother is expected to attend and does attend an antenatal consultation at the Hospital. A fortnightly consultation is held at which all primiparae and other pregnant women with an unfavorable history in previous pregnancies are required to attend. Other multiparae are seen and examined three times during pregnancy.

These fortnightly consultations are held four times each week, and a fifth weekly consultation is also held by Dr. W. H. F. Oxley, the honorary visiting officer of the institution, to whose skill and constant care the institution owes much. The first named consultations are held by the assistant matron, specially skilled in this work, which she has carried out for many years. Any patient found by her to have even a trace of albuminuria, or to present a malpresentation of the foetal head, or any other abnormality, is always referred to the medical clinic. The principle claimed for this scheme is that a skilled nurse with many years' experience of midwifery and antenatal work can be trusted to pick out the patients who should consult with the medical officer. There is the closest cooperation between the assistant matron and the doctor; and in the circumstances of this institution the economical system here adopted works admirably.

A seriological blood test for syphilis is not made as a routine; it is only made when symptoms or the history of the patient indicate its desirability. All patients with syphilis are referred to the special venereal disease clinic at St. Bartholomew's Hospital, where they can have treatment without delay or waiting. Such cases are very few in number in the experience of the lying-in hospital. Such patients are attended for parturition by this institution and come into the general statistics.

In discussing the carrying on of the antenatal clinic in ordinary cases without medical aid, the very competent assistant matron was confident that this arrangement in experienced hands was the best. Dr. Oxley,

I gathered, shared her view that for the doctor to see the patient once or twice or even three times during pregnancy gave a false and misleading sense of security. It may be added that its expense might shipwreck a general scheme for the poor. The nurse should know enough to insure immediate reference to a doctor whenever required.

In the lying-in hospital are employed five midwives and one relieving sister. In the district work two sisters and eight midwives are employed, who live in the Hospital.

The discovery of wrong presentations is an important part of the antenatal work. The midwives are trained to recognize these, and version for breech presentations are usually carried out in the thirtieth week of pregnancy. This has been done for the last fifteen years, and it partially accounts (by preventing "breech" births) for the low infant mortality in the experience of the institution. The midwife is encouraged under the doctor's guidance to perform these versions. If she does not succeed at the first attempt, it is then done by the doctor.

As pregnancy approaches its term, determination of the position of the foetal head, and of its size in relation to that of the pelvis, becomes an important part of the skilled midwife's work, as determining the line of procedure to be adopted.

The urine is tested in every case fortnightly from the time of booking, which is usually early in the seventh month. Any case with the slightest albuminuria is referred to Dr. Oxley. One of the midwives or midwife-pupils visits the patient weekly, and reports whether the albumen has disappeared under dietetic treatment. If not, the patient is usually admitted to the Hospital, and if the albuminuria then continues, labor is commonly induced, as otherwise chronic nephritis may follow.

As for other complications, the main indication is to prevent their occurrence. Eclampsia occurs chiefly in patients who have not come under supervision. In the experience of this charity the last death from this cause occurred in 1919, since when 20,000 patients have been attended. During the last four years only one slight case of eclampsia has occurred among 8,000 patients, and this patient had neglected

to come for antenatal examination for three weeks.

A few of the midwives are able to make blood pressure tests; but as high pressure is rare apart from albuminuria, the test is rarely needed except as a prognostic guide.

The detection of vaginal discharge is an important part of the antenatal work. This is treated at the Hospital, the patient sometimes being admitted for this condition.

Dental caries, if considerable, is treated, patients being referred to other centers.

The methods of dealing with other complications of pregnancy and parturition need not be detailed.

General Observations. The preceding details give only a partial possible explanation of the favorable experience of the Maternity Hospital. But there can be no question as to the importance of the rigidly required and cheerfully accepted antenatal supervision. For:

(1) It is the beginning of the system of supervision and preventive action characterizing the entire work of the institution.

(2) The doctor and matron alike are confident that the consistently good results are due to three factors, all operating as the result of the remarkable spirit of service and devotion characterizing the staff. (a) The patient is quickly made to realize that a deep interest is being taken in her welfare. (b) The patient almost without exception obeys in every detail the instructions given to her. (c) These instructions are reduced to their utmost possible simplicity.

Not too much is asked, from the nurse or the patient. An impossible asepticism is not aimed at, but the utmost cleanliness of hands, mackintosh, et cetera, is required. Lysol and other antiseptics, which in adequately strong solution will be uncomfortable for the nurses' hands, are eschewed, and mercuric chloride solution is always used after previous soap and water. There is no prohibition of vaginal examinations.

About 7 per cent of the cases attended at home are seen also by the doctor, called in by the midwife. It will be borne in mind that the home-attended cases have been partially "weeded" of patients likely to need medical aid.

It would carry us too far afield to discuss the general

problem of excessive puerperal mortality in the light of this striking local experience. But a few observations may be made, reserving more general inferences until the experience in this respect in several countries is analyzed.

A large part of the excessive puerperal mortality prevalent in many countries must be ascribed to the ignorance and unwitting neglect of the mother herself. The entire machinery of the East End Maternity Hospital is calculated to overcome this ignorance and neglect. Sympathetic cooperation of a high order between doctor, midwives and patients is secured, and maintained.

The dangers of malpresentation, of contracted pelvis, of antecedent disease are reduced to an apparent minimum. The care given in parturition secures relative immunity from sepsis, which is perhaps most frequently due to trauma.

It is highly probable that much of the excessive puerperal mortality in private medical practice is due to delay in institutional treatment when this is found by the doctor to be needed. It is much more, probably, a question of the conditions under which institutional treatment can be secured than of the actual deficiency of beds, though this occurs in some extra-metropolitan areas.

If the patient is sent by the private doctor to an institution (e. g., for severe albuminuria or for narrow pelvis, et cetera), the doctor loses his prospective fee for the case. Perhaps as important as this is the fact that he loses prestige in his practice by sending a patient to a hospital. These human factors need to be weighed and provided for in securing safer parturition.

A further difficulty, becoming greater year by year is that, with the increasing practice of midwifery by midwives, private medical practitioners become less experienced in this branch of their work. If this work is not, on the merits, to fall gradually into the hands of specialized obstetricians, who could not always be available in scattered rural communities, every effort is needed to continue the link between midwifery and medicine; and to this end the increased provision of post-graduate medical education in midwifery would be a valuable contribution.

NEWS DIGEST

AS a rounding out of the rural demonstration program in Cattaraugus County, the Milbank Memorial Fund is financing a critical historical review of the local health program that has been developed there during the period of the demonstration in order to see what lessons may be drawn from its successes and its failures. Dr. C.-E. A. Winslow, professor of public health, Yale University, is in charge of the study which has been in progress for the past six months. It is expected that the field work will be completed at an early date.

In addition to Dr. Winslow, five other specialists—Professor Ira V. Hiscock, Dr. H. R. Edwards, Miss Katharine Tucker, Miss Margaret Byington, Dr. K. F. Shuttleworth—and various survey staff assistants, have been participating in the study and will assume responsibility in the preparation of the final report. The contributions of these investigators will include quantitative appraisals of various aspects of the local health program in Cattaraugus County according to the standards of the appraisal form of the American Public Health Association, and likewise personal evaluation of the quality of the services.

The final report of this review will be in the form of a symposium volume, consisting of seven chapters. In the first chapter, Dr. Winslow will present the general narrative account of the Cattaraugus County health program, including a history of the demonstration and its reactions upon local customs, political policies and social viewpoints. In addition, he will present summary analyses, based on details presented in later sections of the report, of the influence and results of the various aspects of the program.

Professor Ira V. Hiscock, department of public health,

Yale University, will contribute a chapter reviewing the program from a public health viewpoint. He will appraise the program on a quantitative basis at various stages in its development, according to the American Public Health Association standard, and will make comparisons with other rural counties.

The quality of service from a medical and public health standpoint will be critically reviewed by Dr. H. R. Edwards, director of the division of tuberculosis of the Department of Health, New Haven, Connecticut. This section will discuss the tuberculosis program as a whole and the quality of service by clinical case reviews of results of public health procedure in tuberculosis, infant mortality and school hygiene.

The quality of service from a nursing standpoint will be reviewed by Miss Katharine Tucker, director, Visiting Nurses Society of Philadelphia. Miss Tucker will make a personal evaluation of the nursing program as a whole and will consider individual problems as related to the nursing service.

The social service program will be discussed by Miss Margaret F. Byington, research consultant for the Russell Sage Foundation. In reviewing this service of the demonstration, Miss Byington will include a study of the relation of the social service program to the public health program, giving special consideration to the adequacy of medical care for the poor.

A chapter, prepared by F. K. Shuttleworth, of the department of education, Yale University, will review the educational influence of the demonstration on residents of the County, as indicated by popular knowledge and attitudes concerning public health. This study will take into consideration both adults and school children in Cattaraugus County and in a control county.

In addition to the survey staff who are contributing to the field study and the writing of the report of the Cattaraugus County health program, other public health experts, including Dr. Donald B. Armstrong, fourth vice-president of the Metropolitan Life Insurance Company, and Dr. W. F. Walker, field secretary of the American Public Health Association, have been in consultation. Statistical material which has been collected by the Divi-

sion of Research of the Milbank Memorial Fund, has been placed at the disposal of Professor Winslow and his associates, and a chapter of the report will summarize some of this material.

SYRACUSE has been awarded first honor among cities of Class II (cities with a population ranging from 100,000 to 500,000), in the 1929 Inter-Chamber Health Conservation Contest conducted by the United States Chamber of Commerce and the American Public Health Association.

One hundred and eight cities, representing five broad population groups and 30 per cent of the urban population in the United States, entered the contest and submitted schedules of their local health administrative practices. One first award was made in each group. Water supply, sewage disposal, protection of food supplies, medical conferences, disease prevention programs, vital statistics, and support for public health work given by official and voluntary agencies were among the factors considered by the grading committee, of which

This plaque was awarded to the City of Syracuse for past accomplishments in health conservation by cities in the United States with from 100,000 to 500,000 population. The award was made by the United States Chamber of Commerce.

Dr. W. S. Rankin, chairman of the executive board of the American Public Health Association, was chairman.

The awards were made on May 1, 1930, at the eighteenth annual meeting of the Chamber of Commerce of the United States, in Washington, D. C. At this time the Syracuse Chamber of Commerce was presented with a bronze plaque. Dr. George C. Ruhland, commissioner of health and director of the Syracuse Health Demonstration, responded on behalf of the City. The plaque, which symbolizes the spirit of health, has been mounted in the office of the Syracuse Chamber of Commerce.

"This is surely municipal glory enough for a day, for a year or for a decade," the Syracuse *Herald* writes in an editorial of April 23rd, commenting on the award.

The editorial continues, "The great city group in which Syracuse has now forged to the front on a vital test of excellence easily represents the best average of the nation's city life. After all, the big metropolitan centers are few in number, and inordinately addicted to the craze for bigness and wealth. If we apply the gauge of community welfare, which, in turn, is largely dependent on public health security, the second-class group, wherein Syracuse now shines, can establish its claim to precedence. Far better than dazzling metropolitan eminence in mere magnitude and opulence is the municipal priority Syracuse now enjoys, namely, in the words of a disinterested but admiring outsider, 'a high record of achievement in keeping healthy the folks at home.' "

The general interest created in the advancement of health and of official health organizations by the contest has been evidenced locally by the recent formation of a committee on health in the Syracuse Chamner of Commerce.

BY offering to meet the expenses of laboratory tests needed by patients unable to afford the usual fee charged by private laboratories, the Bellevue-Yorkville Health Demonstration has recently inaugurated a new experimental health service. Private physicians in the district have been notified that patients needing such service who can afford to meet none or only a part of the expense of

laboratory tests may be sent to the demonstration headquarters. These patients are then referred to the several laboratories in the district with which arrangements for the service have been made.

The examinations offered exclude those already provided free of charge by the Department of Health. They include blood counts, blood chemistry, urinalysis, examination of skin, tissue, gastric contents, feces, and body fluids other than spinal, basal metabolism and blood coagulation tests, and blood typing for transfusion.

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AS notable as the warmth of the tributes paid to Dr. William H. Welch on his eightieth birthday, April 8, 1930, was the far range of the places in which he was honored by formal gatherings of his friends on this occasion. When President Hoover said to a distinguished audience in Washington that "Dr. Welch is our greatest statesman in the field of public health," his words were heard all over America and in many distant lands.

Meetings linked by radio to the celebration in Washington, and with additional programs of their own, were sponsored by medical and similar organizations in New York, Cincinnati, St. Louis, Portland, Oregon, San Francisco and Los Angeles. Yale University, Dr. Welch's alma mater, held a special celebration, as did Norfolk, Connecticut, his birthplace.

Foreign celebrations included a meeting at the Health Section of the League of Nations, in Geneva; a dinner by the Pasteur Institute, in Paris; an assembly at the London School of Hygiene and Tropical Medicine; a dinner at the Peiping Union Medical College, in China; and special ceremonies at the Kitasato Institute for Infectious Diseases, in Tokyo.

On April 4, Dr. Welch was given a testimonial dinner by the New York Academy of Medicine, and on April 9, the day after his birthday, he was the guest of honor in his home town at a large gathering arranged by the University Club of Baltimore.

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